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LISA Z. TURNER

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09/909,566
BB1465 US NA

Substitute Sequence Listing - CRF
Substitute Sequence Listing Paper Copy - 6 pages
Copy of Notice to Comply With Requirements for Patent Applications Containing Nucleotide Sequence Disclosures
Sequence Statement
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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/909,566	07/20/2001	Edgar B. Cahoon	BB1465 US NA

23906
E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

CONFIRMATION NO. 4352

FORMALITIES LETTER



OC00000008297684

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Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

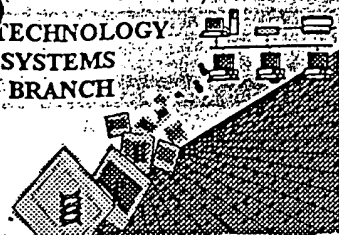
For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

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Application Serial Number: 09/909,566 B
Source: OIPB
Date Processed by STIC: 5-22-02

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

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see page 6



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RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/09/909,566B

TIME: 11:28:29

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Output Set: N:\CRF3\05222002\I909566B.raw

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5 <120> TITLE OF INVENTION: A Cytochrome P450 enzyme associated with the synthesis of
delta-
6      12-epoxy fatty acids
8 <130> FILE REFERENCE: BB1465 US NA
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/909,566B
C--> 11 <141> CURRENT FILING DATE: 2002-05-10
13 <150> PRIOR APPLICATION NUMBER: 60/219833
14 <151> PRIOR FILING DATE: 2000-07-21
16 <160> NUMBER OF SEQ ID NOS: 7
18 <170> SOFTWARE: Microsoft Office 97
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1733
22 <212> TYPE: DNA
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RAW SEQUENCE LISTING

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DATE: 05/22/2002

TIME: 11:28:29

Input Set : A:\bb1465 us nacorrected seq lst.txt

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1733

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60 <213> ORGANISM: Euphorbia lagascae
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67           20           25           30
69 Pro Pro Pro Gly Pro Trp Lys Phe Pro Ile Ile Gly Asn Leu Pro His
70           35           40           45
72 Leu Leu Leu Thr Ser Asp Leu Gly His Glu Arg Phe Arg Ala Leu Ala
73           50           55           60
75 Gln Ile Tyr Gly Pro Val Met Ser Leu Gln Ile Gly Gln Val Ser Ala
76   65           70           75           80
78 Val Val Ile Ser Ser Ala Glu Ala Ala Lys Glu Val Met Lys Thr Gln
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81 Ala Asp Ala Phe Ala Gln Arg Pro Ile Val Leu Asp Ala Gln Ile Val
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87 Arg Gln Met Lys Lys Ile Trp Ile Leu Glu Phe Leu Ser Ala Lys Lys
88           130          135          140
90 Val Gln Ser Ser Arg Leu Ile Arg Glu Glu Glu Met Glu Asp Ala Ile
91 145           150           155           160
93 Thr Phe Leu Arg Ser Lys Ala Gly Ser Pro Val Asn Ile Thr Lys Ile
94           165           170           175
96 Ile Tyr Gly Ile Ile Ile Ser Ile Met Ile Arg Thr Ser Val Gly Asn
97           180          185          190
99 Cys Lys Gln Lys Glu Arg Leu Leu Ser Val Ala Asp Ala Val Asn Glu
100          195          200          205
102 Ala Ala Thr Ser Phe Gly Thr Ala Asp Ala Phe Pro Thr Trp Lys Leu
103          210          215          220
105 Leu His Tyr Ile Ile Gly Ala Glu Ser Lys Pro Arg Arg Leu His Gln
106 225           230           235           240
108 Glu Ile Asp Asp Ile Leu Glu Glu Ile Leu Asn Glu His Lys Ala Asn
109           245           250           255
111 Lys Pro Phe Glu Ala Asp Asn Leu Met Asp Val Leu Leu Asn Leu Gln
112           260           265           270
114 Lys Asn Gly Asn Val Pro Val Pro Val Thr Asn Glu Ser Ile Lys Ala
115           275           280           285
117 Ser Val Leu Gln Met Phe Thr Ala Gly Ser Glu Thr Thr Ser Lys Ala
118           290           295           300
120 Thr Glu Trp Val Met Ala Glu Leu Met Lys Asn Pro Thr Glu Leu Arg
121 305           310           315           320
123 Lys Ala Gln Glu Glu Val Arg Gln Val Phe Gly Glu Met Gly Lys Val
124           325           330           335
126 Asp Glu Ser Arg Phe His Asp Leu Lys Phe Phe Lys Leu Val Val Lys

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RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/09/909,566B

TIME: 11:28:29

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Output Set: N:\CRF3\05222002\I909566B.raw

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129 Glu Thr Leu Arg Leu His Pro Pro Val Val Leu Ile Pro Arg Glu Cys
130          355          360          365
132 Arg Glu Thr Thr Arg Ile Asp Gly Tyr Glu Ile His Pro Asn Thr Arg
133          370          375          380
135 Ile Val Val Asn Ala Trp Ala Ile Gly Arg Asp Pro Asn Thr Trp Ser
136 385          390          395          400
138 Glu Pro Gly Lys Phe Asn Pro Glu Arg Phe Lys Asp Cys Ala Ile Asp
139          405          410          415
141 Tyr Lys Gly Thr Thr Phe Glu Leu Val Pro Phe Gly Ala Gly Lys Arg
142          420          425          430
144 Ile Cys Pro Gly Ile Thr Ser Ala Ile Thr Asn Leu Glu Tyr Val Ile
145          435          440          445
147 Ile Asn Leu Leu Tyr His Phe Asn Trp Glu Leu Ala Asp Gly Ile Thr
148          450          455          460
150 Pro Gln Thr Leu Asp Met Thr Glu Ala Ile Gly Gly Ala Leu Arg Lys
151 465          470          475          480
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156 Ser Asn Ile Ser
157          500
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161 <211> LENGTH: 502
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163 <213> ORGANISM: Capsicum annuum
165 <400> SEQUENCE: 3
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167 1 5 10 15
169 Ser Ile Ile Leu Leu Lys Lys Trp Lys Thr Gln Lys Leu Asn Leu
170 20 25 30
172 Pro Pro Gly Pro Trp Lys Leu Pro Phe Ile Gly Ser Leu His His Leu
173 35 40 45
175 Ala Val Ala Gly Pro Leu Pro His His Gly Leu Lys Asn Leu Ala Lys
176 50 55 60
178 Leu Tyr Gly Pro Leu Met His Leu Arg Leu Gly Glu Ile Pro Thr Val
179 65 70 75 80
181 Ile Ile Ser Ser Pro Arg Met Ala Lys Glu Val Leu Lys Thr His Asp
182 85 90 95
184 Leu Ala Phe Ala Thr Arg Pro Lys Leu Val Val Ala Asp Ile Val His
185 100 105 110
187 Tyr Asp Ser Thr Asp Ile Ala Phe Ser Pro Tyr Gly Glu Tyr Trp Arg
188 115 120 125
190 Gln Ile Arg Lys Ile Cys Ile Leu Glu Leu Ser Ala Lys Met Val
191 130 135 140
193 Lys Phe Phe Ser Ser Ile Arg Gln Asp Glu Leu Ser Met Met Val Ser
194 145 150 155 160
196 Ser Ile Arg Thr Met Pro Asn Phe Pro Val Asn Leu Thr Asp Lys Ile
197 165 170 175
199 Phe Trp Phe Thr Ser Ser Val Thr Cys Arg Ser Ala Leu Gly Lys Ile

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RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/09/909,566B

TIME: 11:28:29

Input Set : A:\bb1465 us nacorrected seq 1st.txt

Output Set: N:\CRF3\05222002\I909566B.raw

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200          180          185          190
202 Cys Arg Asp Gln Asp Lys Leu Ile Ile Phe Met Arg Glu Ile Ile Ser
203          195          200          205
205 Leu Thr Gly Gly Phe Ser Ile Ala Asp Phe Phe Pro Thr Trp Lys Met
206          210          215          220
208 Leu His Asp Val Gly Gly Ser Lys Thr Arg Leu Leu Lys Ala His Arg
209 225          230          235          240
211 Lys Ile Asp Glu Ile Leu Glu His Val Val Asn Glu His Lys Gln Asn
212          245          250          255
214 Arg Ala Asp Gly Gln Lys Gly Asn Gly Glu Phe Gly Gly Glu Asp Leu
215          260          265          270
217 Ile Asp Val Leu Leu Arg Val Arg Glu Ser Gly Glu Val Gln Ile Ser
218          275          280          285
220 Ile Thr Asp Asp Asn Ile Lys Ser Ile Leu Val Asp Met Phe Ser Ala
221          290          295          300
223 Gly Ser Glu Thr Ser Ser Thr Thr Ile Ile Trp Ala Leu Ala Glu Met
224 305          310          315          320
226 Met Lys Lys Pro Ser Val Leu Ala Lys Ala Gln Ala Glu Val Arg Gln
227          325          330          335
229 Val Leu Lys Glu Lys Lys Gly Phe Gln Gln Ile Asp Leu Asp Glu Leu
230          340          345          350
232 Lys Tyr Leu Lys Leu Val Ile Lys Glu Thr Leu Arg Met His Pro Pro
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235 Ile Pro Leu Leu Val Pro Arg Glu Cys Met Lys Asp Thr Lys Ile Asp
236          370          375          380
238 Gly Tyr Asn Ile Pro Phe Lys Thr Arg Val Ile Val Asn Ala Trp Ala
239 385          390          395          400
241 Ile Gly Arg Asp Pro Glu Ser Trp Asp Asp Pro Glu Ser Phe Ser Pro
242          405          410          415
244 Glu Arg Phe Glu Asn Ser Ser Val Asp Phe Leu Gly Ser His His Gln
245          420          425          430
247 Phe Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Pro Gly Met Leu Phe
248          435          440          445
250 Gly Leu Ala Asn Val Gly Gln Pro Leu Ala Gln Leu Leu Tyr His Phe
251          450          455          460
253 Asp Arg Lys Leu Pro Asn Gly Gln Ser His Glu Asn Leu Asp Met Thr
254 465          470          475          480
256 Glu Ser Pro Gly Ile Ser Ala Thr Arg Lys Asp Asp Leu Val Leu Ile
257          485          490          495
259 Ala Thr Pro Tyr Asp Pro
260          500

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264 <211> LENGTH: 51

265 <212> TYPE: DNA

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51

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/09/909,566B

TIME: 11:28:29

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Output Set: N:\CRF3\05222002\I909566B.raw

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292 <212> TYPE: DNA
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/22/2002
PATENT APPLICATION: US/09/909,566B TIME: 11:28:30

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Output Set: N:\CRF3\05222002\I909566B.raw

Use of <220> Feature(NEW RULES):

Sequence(s)___are missing the <220> Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence"
or "Unknown". Please explain source of genetic material in <220> to <223>
section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32)
(Sec.1.823 of new Rules)

Seq#:4,5,6,7

VERIFICATION SUMMARY

DATE: 05/22/2002

PATENT APPLICATION: US/09/909,566B

TIME: 11:28:30

Input Set : A:\bb1465 us nacorrected seq lst.txt

Output Set: N:\CRF3\05222002\I909566B.raw

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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
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